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<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence during pendency of filed application)</i>	Application Number	10/642,477	
	Filing Date	August 15, 2003	
	First Named Inventor	Masakazu Kawai	
	Group Art Unit Number	3736	
	Examiner Name	Jeffrey Gerben Hoekstra	
Total Number of Pages in This Submission	11*	Attorney Docket Number	20911-08172

ENCLOSURES (check all that apply)	
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Masakazu Kawai et al.  
APPLICATION NO.: 10/642,477  
FILING DATE: August 15, 2003  
TITLE: Method and Processor for Obtaining Moments and Torques in a Biped Walking System  
EXAMINER: Jeffrey Gerben Hoekstra  
GROUP ART UNIT: 3736  
ATTY. DKT. NO.: 20911-08172

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SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT  
Under 37 CFR §§ 1.56 and 1.97-98

SIR:

Pursuant to the provisions of 37 CFR §§ 1.56 and 1.97-98, enclosed herewith is modified form PTO/SB/08A listing references for consideration by the Examiner.

The filing of this Information Disclosure Statement shall not be construed as a representation regarding the completeness of the list of references, or that inclusion of a reference in this list is an admission that it is prior art or is pertinent to this application, or that a search has been made, or as an admission that the information listed is, or may be considered to be, material to patentability, or that no other material information exists, and shall not be construed as an admission against interest in any manner.

This Information Disclosure Statement is being filed:

- ☐ within three months of the filing date of the application, or date of entry into the national stage of an international application, or before the mailing date of a first office action on the merits, whichever event last occurred;
- ☐ before the mailing of a first official action after the filing of a request for continued examination (RCE) under 37 CFR § 1.114;

- ☒ after three months of the filing date of this national application or the date of entry of the national stage in an international application, or after the mailing date of the first official action on the merits, whichever event last occurred, but before the mailing date of the first to occur of either: (1) a final action under 37 CFR § 1.113; or (2) an action that otherwise closes prosecution in the application, and:
  - ☒ attached hereto is the fee set forth under 37 CFR § 1.17(p) for submission of this Information Disclosure Statement under 37 CFR § 1.97(c); OR
  - ☐ Applicant certifies pursuant to 37 CFR § 1.97(e) that:
    - ☐ each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; OR
    - ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement;
- ☐ on or before the payment of the issue fee but after the mailing date of the first to occur of either: (1) a final action under 37 CFR § 1.113; (2) a notice of allowance under 37 CFR § 1.311; or (3) an action that otherwise closes prosecution in the application, and:
  - ☐ Applicant certifies pursuant to 37 CFR § 1.97(e) that:
    - ☐ each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement;
    - ☐ no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing this

certification after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated under 37 CFR § 1.56(c) more than three months prior to the filing of this Statement; AND

- ☐ attached hereto is the fee set forth under 37 CFR §1.17(p) for submission of this Information Disclosure Statement under 37 CFR § 1.97(d); OR
- ☐ after the payment of the issue fee. Applicant requests that the information contained in this Information Disclosure Statement be placed in the file according to 37 CFR § 1.97(i), although the information may not be considered by the USPTO.
- ☐ Enclosed is a copy of each listed reference that may be material to the examination of this application, and for which there may be a duty to disclose.
- ☐ This application relies, under 35 U.S.C. § 120, on the earlier filing date of prior application No. \_\_\_\_\_, filed on \_\_\_\_\_, and the references cited therein are hereby referenced, but are not required to be provided in this application under 37 CFR § 1.98(d).
- ☒ Copies of any foreign patent documents and non-patent literature cited herein are enclosed.
- ☐ Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application, and the communication was not received by any individual designated in 37 CFR § 1.56(c) more than thirty days prior to the filing of this Information Disclosure Statement. 37 CFR § 1.704(d).
- ☐ Applicant submits that no fee is required for the consideration of this Information Disclosure Statement.

Consideration of the listed references and favorable action are solicited.

Respectfully submitted,  
MASAKAZU KAWAI ET AL.

Dated: 6/22/06

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet

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**Complete if Known**

Application No.

10/642,477

Filing Date

August 15, 2003

First Named Inventor

Masakazu Kawai

Art Unit

3736

Examiner Name

Jeffrey Gerben Hoekstra

Attorney Docket Number

20911-08172

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document No. Number – Kind Code <sup>2</sup> (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
	A1	US-2005/0104548 A1	05-19-2005	Takenaka et al.
	A2	US-2005/0102111 A1	05-12-2005	Dariush et al.
	A3	US-2004/0158175 A1	08-12-2004	Ikeuchi et al.
	A4	US-2004/0158175 A1	08-12-2004	Ikeuchi et al.
	A5	US-6,785,591 B1	08-31-2004	Hansson
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	A9	US-2004/0102723 A1	05-27-2004	Horst
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	A13	US-2003/0018283 A1	01-23-2003	Dariush
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	A20	US-4,834,200	05-30-1989	Kajita
	A21	US-4,786,847	11-22-1988	Daggett et al.
	A22	US-4,244,120	01-13-1981	Harris

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20911/08172/DOCS/1619061.1

# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

## **Complete if Known**

Application No.	10/642,477
Filing Date	August 15, 2003
First Named Inventor	Masakazu Kawai
Art Unit	3736
Examiner Name	Jeffrey Gerben Hoekstra
Attorney Docket Number	20911-08172

Sheet

2

of

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## **FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> – Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>
	B1	RU 2 107 328 C1	03-20-1998	Nurislamovich, Latypov (English Abstract only)	
	B2	WO 00/35346	06-22-2000	Stanford University	

## **OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>6</sup>
	C1	AGARWAL, S.K. et al., "Theory and Design of an Orthotic Device for Full or Partial Gravity-Balancing of a Human Leg During Motion," IEEE Transactions on Neural Systems and Rehabilitation Engineering, June 2004, Vol. 12, No. 2.	
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				Application No.	10/642,477
				Filing Date	August 15, 2003
				First Named Inventor	Masakazu Kawai
				Art Unit	3736
				Examiner Name	Jeffrey Gerben Hoekstra
Sheet	3	of	5	Attorney Docket Number	20911-08172

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Examiner Signature		Date Considered	
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	C30	HEMAMI, H. et al., "Modeling And Control Of Constrained Dynamic Systems With Application To Biped Locomotion In The Frontal Plane," <i>IEEE Transactions on Automatic Control</i> , Vol. 4, No. 4, August 1979, pp. 526-535.	
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Examiner Signature		Date Considered	
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	C46	SHADMEHR, R., "Learning Virtual Equilibrium Trajectories for Control of a Robot Arm", Neural Computation, 1990, Vol. 2, pp. 436-446	
	C47	SIMONS, W. et al., "Differentiation of Human Motion Data Using Combined Spline and Least Squares Concepts," Journal of Biomechanical Engineering, Transactions of the ASME, August 1991, Vol. 113, pp. 348-351.	
	C48	THELEN, D. et al., "Generating Dynamic Simulations of Movement Using Computed Muscle Control," <i>Journal of Biomechanics</i> , 36, 2003, pp. 321-328.	
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